

Contents

IN THE FIELD

- CERDEC vehicle participates in unique test
- TARDEC announces winners of Intelligent Ground Vehicle competition
- TARDEC exhibits life saving technology at AMC Headquarters
- TARDEC sponsors cross-country fuel cell truck expedition
- TARDEC trailer modernization support is far reaching

IN THE LAB

- Lightweight advanced composite structural armor testing
- Capillary force fuels pocket stove

PARTNERSHIP

- Home schooled children try out some Army stuff
- TARDEC acquires advanced research institute at Oakland University
- U.S. Army sponsored eCYBERMISSION competition announces its 2004-2005 national winners
- Army e-Learning: Promoting professional and personal transformation

PEOPLE

- RDECOM Commander pins on second star
- Awards presented to five AATD employees
- CERDEC employee receives prestigious award
- CERDEC Soldier awarded Bronze Star
- Hitchcock honored with Lawrence Tech University alumni achievement award
- New Command Sergeant Major sets commanding goals
- TARDEC musician inspires Habitat for Humanity volunteers

NEWS BRIEFS

- Display showcased Soldier technology and chow to Senators and staff
- ECBC Participates in BIO-2005 - DoD Biodefense Panel
- RDECOM Soldier selected as Soldier of the Year
- The Army Sexual Assault Prevention and Response Program

CERDEC vehicle participates in unique test

By Desiree DiAngelo

U.S. Army Communication-Electronics Research, Development and Engineering Command Public Affairs Office

The courtyard behind the Myer Center is not the usual setting one would think as a host to a Network Wide System of Systems. However, for five weeks, employees peered out their windows to get a glimpse of the intricate scene below.

Crews worked diligently, strategically transforming the empty black top lot into a bustling testing site. The test, which ran from May 4-19, was the first of its kind to be both preformed at Fort Monmouth and administered by engineers and computer scientists.

The primary objective of the test was to obtain a system material release for the Network Operations Center Vehicle (NOC-V) and the Secure Wireless Lan (SWLAN).

The NOC-V is an operational system which has the capabilities and integrated means to plan, manage, monitor and control tactical systems and networks in a battlefield environment. Among its many capabilities, the NOC-V has a global broadcasting system allowing soldiers to watch Armed Forces Network and CNN while in the field. It is the Army's S6 shelter for the Stryker Brigade Combat Team's (SBCT's) Tactical Operations Center (TOC's).

The Army Test and Evaluation Command were on site to verify and validate the test data. The NOC-V's range ability, capabilities, message traffic and all system communications were tested.

The NOC-V has proven to be the SBCT's shining star, receiving rave reviews from satisfied service men and women. Along with its accomplishments in the field, there is also the success of Fort Monmouth as a testing facility. Administering the test at the fort allowed the Communications- Electronics Research, Development and Engineering Center to showcase its abilities, technologies, and significant role in the testing arena.

"Although tests are usually performed at Aberdeen Proving Ground, Md. and Fort Huachuca, Ariz., Fort Monmouth had the capabilities and the infrastructure to be a host. Conducting the test here proved to be a cost effective solution to obtain a material release," Sharon Mackey, chief of network operations, said.

With the facilities, staff, integrated labs, a robust network, and its core location to the Project Manager and the Program Executive Office, CERDEC proved to be strong asset to the test.

"We have the environment conducive for designing, developing, testing, and all the while supporting and aiding in a product's transition from concept to field," Mackey added



The five-week, Network Wide System of Systems, test was the first of its kind to be performed at Fort Monmouth, N.J. (Photo by Christopher Luongo)

The test configuration environment emulated the field in the most operational like setting as possible. The position of the TOC's mirrored that of a Brigade Forward, Brigade Support Battalion and the Calvary Battalion. The courtyard was an organized maze of cables connecting three TOC's, which are comprised of a NOC-V connected to an instrumentation suite.

The combined efforts between two CERDEC directorates; Space and Terrestrial Communications Directorate (S&TCD) and Command and Control Directorate (C2D) proved to be a successful cohesion.

"The success of the test was a direct result of the dedication and desire to see the system succeed and prove its versatile capability," stated Kim Ploskonka, S&TCD's NOC-V project leader.

"There were many long nights during the planning stage and even longer days during the actual test. Participants from around the country came together and successfully coordinated their efforts," she added.

The test community encompassed representatives from Electronics Proving Ground, the U.S. Army Signal Center at Fort Gordon Ga., as well as S&TCD and C2D just to name a few of the more than 38 subject-matter experts involved in monitoring the systems and collecting data.

Contingent upon the test results, ATEC can issue a full material release which will allow the NOC-V to become integrated into the Army's standard military equipment inventory, as an accredited and logistically supported system for warfighter use. The test data will be analyzed and a report will be generated within 90 days, and if positive will help the NOC-V move out of the prototype phase.

Beyond the results, Mackey summed it up best when she referred to the Fort's most critical role in the test as continuing that support for the warfighter during on-going operations.



If the Army Test and Evaluation Command issue a full material release, the NOC-V will become integrated into the Army's standard military equipment. (Photo by Christopher Luongo)

TARDEC announces winner of Intelligent Ground Vehicle competition

U.S. Army Tank-Automotive Research, Development and Engineering Center

The U.S. Army's Tank Automotive Research, Development and Engineering Center (TARDEC) today announced that a team of Virginia Tech engineering students won the \$10,000 Grand Award at the 13th Intelligent Ground Vehicle Competition (IGVC). Virginia Tech's Team Gemini beat out 37 other university-sponsored teams from the United States, Canada and Japan.

"Unmanned robotic systems play a vital role in supporting our troops in Iraq and Afghanistan," said Dr. Richard McClelland, director of TARDEC. "Seeing these young engineering students develop some really innovative unmanned vehicle designs shows that there is a great future for military and commercial industry robotic technologies."

The IGVC (June 13-15, Traverse City, Mich.) is an international event designed to challenge university students in the burgeoning unmanned vehicle systems field. Students design fully autonomous robots to navigate through an outdoor course scattered with various obstacles. The robots vary in complexity, combining advanced control theory, machine vision, route planning Global Positioning System (GPS) navigation with high-tech software and advanced engineer and programming skills provided by the university students.

TARDEC is advancing state-of-the-art robotic technologies for use by our Joint Forces. In coordination with the Joint Robotics Program and Rapid Equipping Force, TARDEC's Omni Directional Inspection System (ODIS) has been fielded in Iraq and Afghanistan to allow Soldiers to inspect vehicles from a safe distance. ODIS performs under-vehicle inspections to detect explosives, contraband, radiological and in the future, biological and chemical elements. Through a close, collaborative relationship between technology base, material developer and user, TARDEC is accelerating the transition and delivery of the latest advancements in robotic systems to the battlefield.



Engineering students from Virginia Tech make adjustments to their unmanned robotic system at the 13th Intelligent Ground Vehicle Competition (IGVC). Virginia Tech's team defeated 37 other university-sponsored teams from the United States, Canada and Japan to win the competition.

TARDEC exhibits life saving technology at AMC Headquarters

By Paul Mehney
U.S. Army Tank-Automotive Research, Development and Engineering Center

The front lawn at the U.S. Army Materiel Command headquarters was a happening place June 7 when add-on-armor tactical vehicles and other state-of-the-art technologies were displayed for Fort Belvoir Soldiers and civilians to view.

Coordinated by AMC, RDECOM and TARDEC the event highlighted the latest technology being used in support of the Global War on Terrorism and drew an estimated 300 people from AMC headquarters, the Army Management Staff College, Fort Belvoir Community and local Virginia JROTC programs.

Featured was an add-on-armor HMMWV and M939 truck along with a M1114 HMMWV with a new TARDEC designed motion gunner station. Smaller demonstrations included armor and munition samples from the Army Research Laboratory and vehicle imaging and communication electronics from CERDEC's Nightvision Lab.

According to Steve Lehman, AMC public affairs, "We wanted to provide a way for people to have a hands-on experience, to sit in the vehicles and view how the systems operate."

The event provided Soldiers and civilians a chance to see, many for the first time, life saving add-on-armor kits designed by RDECOM and manufactured by TACOM LCMC's Ground Systems Industrial Enterprise arsenals and depots. Representatives from both organizations were there to answer questions from interested persons. Many Soldiers left the demo commenting that they had a better understanding of the type of work the Life Cycle Management Command does and that they would like to have more hands on activities such as the exhibit.

A highlight of the show was the Quantum Aggressor all terrain alternative energy vehicle. TARDEC, with Quantum Technologies, developed a prototype fuel-cell operated vehicle that offers Soldiers more acceleration power, speed and the ability to operate in stealth mode. After driving the Aggressor, Soldiers from Special Operations and the Management Staff College were impressed with the vehicle's speed and stealth.

Capitalizing on the success of this event and to gain additional Soldier feedback while affording Soldiers opportunities to view life-saving technology, RDECOM-TARDEC plans to continue hands on demonstrations at numerous military facilities in the coming months.



Kevin Mills (passenger's seat), TARDEC National Automotive Center engineer, talks to Army civilians about the Quantum Aggressor Alternative Mobility Vehicle.

TARDEC sponsors cross-country fuel cell truck expedition

U.S. Army Tank-Automotive Research, Development and Engineering Center Public Affairs Office

The U.S. Army's Tank Automotive Research Development and Engineering Center recently announced that a fuel cell-powered semi-tractor successfully completed a cross-country trip from California to Washington, D.C. TARDEC's National Automotive Center collaborated with SunLine Transit Agency and Southwest Research Institute to modify a standard Class 8 commercial truck by utilizing engine electrification and a fuel cell auxiliary power unit to complete the 2,650-mile journey.

"Driving a vehicle of this size cross-country with electric power is truly a remarkable accomplishment," said Dr. Richard McClelland, director of TARDEC. "Fuel efficiency is vital for the military. This milestone proves the viability of fuel cell technology for heavy-duty applications, and underscores TARDEC's commitment to work with commercial industry to establish military requirements for alternative energy-powered vehicles."

SwRI engineers converted the truck's water pump, radiator cooling fan, air compressor, air conditioning compressor and air conditioner condenser fan from engine-powered belts and pulleys to electric power. Removing these parasitic loads from the engine and powering them electrically enables the engine's full motive power to propel the truck and increases the overall efficiency of the truck.

To power the accessories, SwRI integrated a fuel cell APU that is independent of the engine and is fueled with hydrogen gas. The proton exchange membrane APU is capable of producing up to 20 kilowatts of power at 42 volts DC, although the truck typically uses no more than approximately 7 kW for normal operation. Hydrogen for the fuel cell is stored in three compressed gas cylinders aboard the truck. The tanks hold approximately 5 kilograms (11 pounds) of hydrogen, or the equivalent energy of about five gallons of gasoline.

TARDEC trailer modernization support is far reaching

By Branden Drake

U.S. Army Tank-Automotive Research, Development and Engineering Center

As participants on the Trailer Integrated Concept Team, TARDEC's Advanced Concepts Team and the National Automotive Center are currently supporting the Product Manager for Trailers in its efforts to meet trailer requirements in the near term as well as through the future Unit of Action Objective Force.

Over 41,000 trailers in the current trailer fleet have already exceeded their economic useful life. Among the fleet, there are a minimum of 185 different trailer models and 65,000 National Stock Numbers to manage, making trailers very costly to maintain. Therefore, it is necessary to develop and implement a strategy that will both address problems within the current fleet and serve as a path forward for trailer modernization efforts.

The trailer fleet modernization transition effort is called Family of Army Scalable Trailers (FAST). FAST program goals include minimizing number of trailer variants, minimizing Operational and Support (O&S) costs, reducing the logistic footprint, maximizing commonality and meeting future force requirements. To help achieve these goals, a modular approach is being investigated which will explore solutions with parts commonality, no special tools requirement, two-level maintenance, easier technology insertions and quick reconfiguration to meet evolving mission requirements.

In support of FAST, TARDEC is currently working with PM Trailers and the trailer community to understand desired trailer capabilities. Information is being acquired from the community through web-based surveys, collaborative brainstorming within ACT's facilities, requirements documents, and PM database information. This ongoing information gathering will identify challenges and help to determine potential improvements as well as provide input for a Quality Functional Deployment (QFD) study.

QFD is a key component in the rapid idea generation process used by the ACT for identification, visualization and analysis of conceptual alternatives. The resulting alternatives are developed virtually using Computer Aided Design (CAD) which are animated to show functionality. To date, two modular concept alternatives have been developed and animated. These virtual models were also used to create 1/20th scale plastic physical models using the NAC's Mobile Parts Hospital. Both the virtual and physical models were displayed at the October 2004, AUSA Annual Meeting, in Washington, D.C.

Other TARDEC trailer efforts, supported by ACT include development of a 13-ton trailer concept, to meet the future companion trailer requirements of the Future Tactical Truck Systems-Maneuver Sustainment Vehicle (FTTS-MSV), and a NAC future semi-trailer demonstrator concept. All these efforts combine to illustrate TARDEC's commitment to help improve and modernize the Army's trailer fleet.



Branden Drake, TARDEC-NAC engineer, briefs a trailer notion in TARDEC's Advanced Concepts collaboration room.

Lightweight advanced composite structural armor testing

By Chip Filar

U.S. Army Tank-Automotive Research, Development and Engineering Center

Engineers from TARDEC's Lightweight Structures Team have been performing test sample fabrication and mechanical testing of the latest designs in advanced hybrid laminated composite materials for lightweight structural armor.

This work has been performed in support of TARDEC's Lightweight Armor Science and Technology Objective (STO) managed by Dr. Douglas Templeton. The technology developed under this STO will benefit future vehicle structure designs on platforms such as Unit of Action systems and Future Tactical Truck Systems by reducing system weight, while enhancing performance and transportability. The complex material combinations being evaluated, from a ballistic perspective, also provide desirable performance characteristics.

This work was initiated in early 2004, in conjunction with the U.S. Army Research Laboratory in an effort to develop a baseline material properties matrix for a proposed structural/armor material. The Lightweight Structures Team approach to this problem was to experimentally quantify the structural performance of these laminates to verify vehicle structural analysis, determine mechanical fatigue properties and thermal stress. To accomplish this, over 30 test specimens have been fabricated in-house by TARDEC engineers working in the Lightweight Structures laboratory, using the latest manufacturing techniques to develop the high-tech armor and structural materials. Each specimen was instrumented with an array of strain gauges to provide data and real-time monitoring of structural effects.

A three-point bend fixture was custom designed specifically for this round of testing, and TARDEC engineers fitted it to the Instron servo-hydraulic materials testing machine in the laboratory. This machine has the capability of performing cyclic fatigue testing up to 55,000 pounds. Approximately 20 tests were performed to determine the fatigue life of the material at room temperature. TARDEC has recently acquired an environmental chamber, and fatigue testing at elevated temperatures has already begun.

The next step of evaluations will determine the fatigue life of the material at extremely low temperatures. The goal of this testing is to compare the experimental data with vehicle structural load data obtained from dynamic simulations. In addition, several 12 inch by 12 inch specimens have been fabricated and are slated to be instrumented and subjected to cycles of extreme environmental conditions to generate the coefficient of thermal expansion of the experimental material and to determine if there may be any long-term environmental degradation.

The data generated from all these tests will give design engineers the tools they need to develop vehicles which have superior structural performance, at the lowest possible weight. Work will continue to quantify the material performance of these complex advanced systems.

In addition to three-point bend fatigue testing and environmental testing the Lightweight Structures laboratory has the ability to perform many types of mechanical testing such as tension, compression, open-hole tension, open-hole compression, short beam shear, flexure, and charpy/izod impact toughness. The laboratory also has two large immersion tanks that enable the non-destructive evaluation of composite materials.



One of the latest designs in advanced hybrid laminated composite materials for lightweight structural armor undergoes testing at TARDEC.

Capillary force fuels pocket stove

U.S. Army Natick Soldier Center Public Affairs Office

Once you hear the slight puff and see the yellow flame mellow into a glowing blue, you know the capillary force vaporizer has gone into action.

The vaporizer is a breakthrough in burner technology being applied to the Modular Individual Water Heater, a jointly developed product of the Department of Defense Combat Feeding Directorate's Equipment and Energy Technology Team at the U.S. Army Soldier Systems Center here, and Mountain Safety Research (MSR), a division of Cascade Designs, Inc. in Seattle, Wash.

Trioxane fuel bars had been the source for warfighters to heat water for beverages, dehydrated rations and personal hygiene, but there were drawbacks and production has been discontinued, said Leigh Knowlton, project officer.

"Soldiers had supply problems because they're considered fuel and ordered separately from food. It will also evaporate if the seal is broken in storage and can give off noxious fumes when burned," he said.

Knowlton said little has changed in the last 40 years in this area of warfighter sustainment. Current authorized equipment to heat water consists of a plastic canteen, steel cup, cup stand and cover. Absent the fuel bar, the alternative is the military's squad stove, a commercial product that has an external fuel tank with a pump to build pressure and prime the stove.

"It's heavy because of the bottle, has a lot of moving parts, it's expensive, and it's not about efficiency-it blasts out heat," Knowlton said. "If you can use less fuel, that's less fuel to carry."

Meal, Ready-to-Eat (MRE) rations have a flameless heater for the entrée and upcoming pouches to make hot beverages, but there's still a void for the dried foods found in the Long Range Patrol/Cold Weather Ration, which require 28-40 ounces of hot water for all the components. He said the situation will worsen if the canteen cup is phased out because of the increasing popularity of bladder hydration systems.

With no existing commercial stove or water heater that's lightweight, compact, compatible with on-the-move hydration systems and meets the military's requirement to burn JP-8 fuel, the capillary force vaporizer invented by Vapore, Inc. in Richmond, Calif., became the solution.

Three-part Wick

About the size and shape of a pair of antacid tablets, the three-layer vaporizer held together by an impermeable exterior glaze has no moving parts and fits inside a cone-shaped stove where it converts liquid fuel into a pressurized gas. Knowlton said the vaporizer is durable as well, working for hundreds of hours before wearing out.

A coarse ceramic layer at the bottom is the feed wick that touches the fuel. In the middle is the boiler wick, a fine ceramic layer that generates high capillary pressure and vaporizes the fuel. On top is the orifice disk that conducts heat from the flame to the boiler wick and has one or more pinhole-sized openings to expel fuel vapor.

"Because there's no pressurized tank, it's potentially safer. If something goes wrong, it just goes out," Knowlton said. "MSR is excited because this is their route to a revolutionary product."

As configured in the current prototype, the stove is unpacked from its own commercial steel mug, but Knowlton said a sack may become available so it can be carried independently.

Starting it is as simple as holding the stove upside down for 30 seconds for priming, turning it upright and lighting the priming wick with an MRE match. Within 60 seconds, the capillary force vaporizer takes over, emitting a whooshing blue flame. A sliding steel lever with off, simmer and full settings regulate output.



The mug filled with water is placed on the stovetop pot support and windscreen. Knowlton said the commercial cup, which is designed to improve heat transfer efficiency, could be offered for the military version, or the system may be modified to accommodate canteen cups.

Another heat transfer system is the hot water coil, which was developed to easily heat water from hydration packs.

Once described as resembling an elephant stethoscope, a flexible plastic tube connects to the water bladder and feeds water to a metal heat exchanger that attaches onto the pot support and windscreen. A valve inside the heat exchanger releases hot water through another tube that can be directed into a dehydrated meal or beverage pouch.

With either method, a pint of water is heated in six to 10 minutes. The stove system has twice the energy efficiency of a squad stove, burns JP-8 and holds enough fuel in its tank to last for three days, Knowlton said.

Cold weather Army and Marine Corps units are likely early adopters, according to Knowlton, although all the services have shown interest. MSR plans on selling a white-gas version of the stove as part of their product line of outdoor recreational gear.

Combat Feeding and MSR built the stove under a cost-sharing contract, and the technology base could lead to more products.

"The vaporizer technology has interesting applications beyond stoves," Knowlton said. "Vapore is leaning toward medical devices. But for military applications, it has potential for anything that needs a small amount of vaporized fuel, and that's challenging to do with JP-8."

Beverage chillers, personnel warmers, lanterns, generators for individual warfighter equipment and infrared markers are examples of small heat-driven devices for the military.

Knowlton said more research is going into the hot water coil and mug to increase their efficiency and reduce weight. The commercial stove will be ready next year, with the military version possibly being fielded in limited quantities before commercial sales.

Home schooled children try out some Army stuff

U.S. Army Research Laboratory Public Affairs Office

A remark about how exciting it would be for children to see some "Army stuff" spurred an invitation from an Army general which resulted in about 20 to 25 youngsters getting to see and try out some "Army stuff" at the U.S. Army Research Laboratory, Adelphi, Md. on June 7.

The remark came from Heather Ward and the invitation from Maj. Gen. Roger A. Nadeau, commander of the U.S. Army Research, Development and Engineering Command, during a conversation at a social event.

Taking the general up on his invitation, Ward rounded up a number of home school children, ages 5 to 8, from Leesburg, Va., and they, along with parents and guardians, visited ARL where they saw the National Science Center Mobile Discovery Van and its elementary science show. They also were able to see and try out some of the gear a Soldier wears in the field courtesy Sgt. Maj. Enoch Godbolt, ARL sergeant major.

In a note of appreciation to ARL, Ward wrote, "The kids thoroughly enjoyed both the Soldier gear and discovery van presentations. They were especially enthralled with all the opportunities to participate in the events. I know that the logistics behind such an event can be extensive, yet you and your staff pulled it off smoothly. We truly appreciate your professionalism and dedication."

Maj. Gen. Nadeau in an e-mail to Gen. Benjamin Griffin, commander of the U.S. Army Materiel Command, wrote "...The visit was a big success for ARL and the Army. Given all that's going on, John's (Miller, ARL director) folks still took the time to focus on a great group of young folks!"



Two young students model the Army's latest in body armor during a visit June 7 to the U.S. Army Research Laboratory, Adelphi, Md. (Photo by Larry Shank)



Sgt. Maj. Enoch Godbolt delivers an orientation to Army field gear to a group of home school students and parents and guardians during a visit to the U.S. Army Research Lab, Adelphi, Md. (Photo by Larry Shank)



Despite the oversized helmet, this student demonstrated excellent saluting technique during a visit June 7 to the U.S. Army Research Laboratory, Adelphi, Md. (Photo by Larry Shank)

TARDEC acquires advanced research institute at Oakland University

By Kevin Centeck

U.S. Army Tank-Automotive Research, Development and Engineering Center

The Fastening and Joining Research Institute (FAJRI) was established in 2003 at Oakland University in Rochester, Mich., with congressional funding that is administered by U.S. Army TACOM and TARDEC.

The institute is a one-of-a-kind state of the art facility with a specific mission to conduct fundamental and applied research in four technological niche areas that impact vehicle safety, reliability, and readiness. The four research areas include the mechanical fastening of metallic and non-metallic components, adhesive bonding of advanced composites and polymers, welding, and advanced riveting technology. FAJRI has conducted two one-day seminars covering the latest in fastening and joining technology at TACOM and other industrial parties to spread new ideas. The new technology transfer from FAJRI has significant impact on both the military and the civilian sectors of the US economy.

In its research, FAJRI takes an integrated systems approach in order to pursue fastening and joining research and to develop and implement new technologies. For example, FAJRI is presently in the process of undertaking some technological challenges involving armor and other attachments to the composite material body of the Future Combat System (FCS) at TACOM.

Using a systems approach, FAJRI researchers are considering all variables related to: 1) the fastener, 2) fastened components, 3) fastening equipment, 4) fastening process, 5) post assembly, and 6) the environment. A similar approach would be used for developing new technologies in the adhesive bonding of composites that includes dispensing technology of adhesives and the mechanical and thermal behavior of adhesives and composites. Likewise, an integrated systems approach would be used for new technologies in advanced joining using rivets and welding; this includes materials, process, equipment, as well as other relevant variables.

Using the Department of Defense funding, FAJRI has recently acquired the latest research equipment to do its research on Oakland University's campus. This includes optical laser equipment and software, ultrasonic fastening testing equipment, and an optical profiler for fastener tribology research. Additionally, DaimlerChrysler Corp. has supported the Institute by providing a production size five-spindle computer controlled tightening system for research on simultaneous tightening strategies of multi-bolted joints in critical applications.

The benefits of the proposed research institute include:

Improving the mobility and combat readiness of military vehicles, such as the Army's Future Combat System (FCS), other ground vehicles, military aircraft, and nuclear defense system. Of particular importance is the research on the bolt-together frames of military trucks, the bolted connections on the M1A1 Abrams Tank, and the fastening and joining of composite joints and attachments for the FCS and other vehicles.

Improving commercial aircraft safety; over two million fasteners are used on a commercial jet.

Improving the transportation safety of passenger cars and trucks as well as bridges and highways.

Improving the safety of nuclear power plants as well as the safety and reliability of traditional fossil fuel plants.

Improving engineering education by emphasizing "safety and reliability" in product design and manufacturing.

Helping the United States and local economies by increasing productivity through reduced downtime and warranty costs associated with failed machines and products.

The development and the transfer of new technology between academia and industry; locally and nationally.

Serving as a unique resource center in an academic, non-profit setting, to various scientific, governmental, and industrial sectors of the American society.



The current Board of Advisors (BOA) of FAJRI is chaired by Dr. Grace Bochenek and Daniel Herrera from the U.S. Army TACOM/TARDEC, and includes members from the Air Force (WPAFB), Boeing Defense, and from the automotive industry.

U.S. Army sponsored eCYBERMISSION competition announces its 2004-2005 national winners

U.S. Army Research, Development and Engineering Public Communications Office

Four national winners were announced June 9 in the U.S. Army's 2004-2005 eCYBERMISSION competition.

The four national winners from grades six through nine are: Scienceteers from Whiteface Elementary School in Whiteface, Texas; WB LifeSavers from West Branch Middle School in West Branch, Iowa; Ocean Raves from St. Dominic School in Brick, N.J. and CO2 Crew from Byng Junior High School in Ada, Okla.

eCYBERMISSION, a web-based science, math and technology competition, allows students in grades six through nine to compete for regional and national awards, while working to solve problems in their community.

The four national first place winners receive a \$5,000 EE savings bond, in addition to the \$3,000 EE savings bond received for selection as a regional winner. All 16 finalist teams also earned an all-expense paid trip to Washington, D.C. for the National Judging and Educational Event, a series of educational enrichment activities and events.

All four national winners presented interesting, and very diverse projects. The Scienceteers set out to inspire a passion for learning among youth by developing and implementing a science education series for elementary school students. The WB LifeSavers initiated a comprehensive effort to increase education, training and awareness about the hazards of driving on rural roads in an effort to reduce the number of teenage driving accidents in their rural community. The Ocean Raves performed water quality tests on a local river, presented their findings to local city officials and created a brochure to educate the community about keeping the river clean. CO2 Crew tested the air quality in their school, identified elevated carbon dioxide levels and presented recommendations to adjust the ventilation rates to better account for the number of students in each classroom.

This year, a total of 1,151 teams submitted projects to the 2004-2005 eCYBERMISSION competition, totaling 4,184 students from across the country and in Department of Defense Education Activity schools worldwide. After being selected as one of 96 regional winning teams in April, the 16 finalist teams traveled to the National Judging and Educational Event in Washington, D.C. to compete for National First Place titles in each grade.



The "Durfee Boys" from Detroit, Mich., along with their team advisor, accept their runner-up awards from senior Army officials at the eCYBERMISSION National Judging and Educational Event Banquet June 9 in Washington, D.C. Despite not winning first place, each student on the team received an additional \$3,500 EE Savings Bond for their effort.

Army e-Learning: Promoting professional and personal transformation

U.S. Army Distributed Learning System Program Manager

Working eight hours a day, five days a week would be a luxury for most Soldiers and Department of the Army civilian employees.

Fort Gordon's Staff Sgt. Jasonica Crawford attests to the long hours worked by Army personnel. "My day starts at 4:00 a.m., I'm at work by 4:45 a.m. and I don't get off sometimes until 6:00 p.m.," Crawford said.

The Army workforce's workload is demanding, and the Army needs its personnel to demonstrate the dedication shown by Crawford in order to successfully accomplish its mission. Yet dedication alone won't prepare the Army for the future. Training and education play a critical role in arming Army personnel with the professional and personal knowledge to succeed in the wars of today and tomorrow, as well as in their careers and personal life. Until recently, the question that Army commanders and personnel faced was not whether training was important, but rather, when can we fit it in?

In order to answer the question, the Army created Army e-Learning, the latest component of the Distributed Learning System. Army e-Learning offers every active duty Soldier, Army Reservist, ROTC cadet and Department of Army civilian employee free access to more than 2,000 commercial web-based information technology, business, leadership, and personal development courses from anywhere with an internet connection. The Army wants to invest in continuing its employees' professional development, and by providing online courses, Army personnel can continue their education and training from their current location within their existing schedule.

Staff Sgt. Crawford lives the Army cliché, "We do more before 9 a.m. than most people do all day." She serves as an instructor at the Army's Basic Non-Commissioned Officers Academy in Fort Gordon, Ga.

Ironically, while she is responsible for helping extend training to students, her demanding schedule made personal education difficult. Army e-Learning changed that.

"Army e-Learning is helping me reach my professional and personal goals. When I have time, I sit down and take a course through Army e-Learning. It's very easy. Some courses are voice synchronous and walk you through the lessons, others you read at your own pace. I've learned a lot from Army e-Learning on topics as diverse as business, information technology, human resources and information assurance," Crawford said.

The Army is actively promoting Army e-Learning for personal and professional use. Just over a year ago, the Army's CIO/G6 sent a directive instructing all Army organizations and major commands to use Army e-Learning to satisfy workforce information technology requirements.

"To date, more than 213,000 users have accessed Army e-Learning, and the numbers continue to rise at a rate of 300-500 new users each week," states Stan Davis, project officer for Army e-Learning. "Army e-Learning provides one stop shopping for IT training using the most up-to-date commercial applications industry has to offer."

Davis adds, "An Army Audit Agency report dated Feb. 25, 2005 determined that over the last three fiscal years, the Army has saved approximately \$86 million. In FY 04, Army soldiers and civilians completed over 159,000 courses, resulting in an estimated savings of \$47.6 million. Assuming a constant rate of savings over the next three years, the Army would save an additional \$142 million."

The Army's aggressive approach to training its workforce is unprecedented. Army e-Learning benefits include: enlisted personnel earning promotion points; access to training and personal mentoring for over 40 certification preparation programs such as MCSE, A+, CISSP, Cisco, Oracle and others; continuous learning points for civilian acquisition workforce; and college accreditation for a number of courses.

Providing Opportunities through Education

Army personnel turn to Army e-Learning for different reasons. Among the many reasons, some need to satisfy an immediate training requirement, others want to increase their likelihood of advancement, and quite frequently, many find their job description fundamentally changing, thereby necessitating training.

That's how Staff Sgt. Crawford was introduced to Army e-Learning. After hearing her service as a telecommunications operator maintainer would be ending in 2007 and she would have to reclassify to another specialty, she faced a choice.

"I could either go through a five-month course that included 17 weeks of formal schooling at Fort Gordon, five days a week in a class all day, or I could go through the lessons on Army e-Learning. Army e-Learning allows me to set my own pace while achieving the same objective. I preferred the Army e-Learning option. It's much less disruptive," Crawford said.

In addition to being less disruptive, Army e-Learning provides two critical benefits. First, it helps expedite getting a college degree, and second, it allows the Army workforce to diversify in their careers.

While creating Army e-Learning, the Army was careful to ensure that its courses could be accredited by the American Council on Education. People who take classes through Army e-Learning have been pleasantly surprised to find that many of their courses easily transfer into college credit, helping speed receiving a college degree.

"Before I enrolled in Franklin University, I informed my college advisor that I was enrolled in Smart Force (now Army e-Learning) and allowed him to review my transcript. He told me that many of the classes I'd taken through Army e-Learning would transfer into college credit," Crawford said.

Army e-Learning also provides the opportunity to diversify within a person's career. Before Army e-Learning, Army employees had little opportunity to pursue a different career field or attend courses that weren't currently part of their duty position. Quotas were usually prioritized based on the individual's current job series and employees were not given the opportunity to attend training simply to learn something new or for their own personal development.

"Now, thanks to Army e-Learning, individuals can become more knowledgeable in other skill areas by completing training at home or anywhere there's an internet connection. It's helping Army professionals to become more competitive in the job market," says Leslie York, IT specialist for the Army e-Learning Program.

From Active Duty to Civilian

Army e-Learning plays a significant role in preparing active duty Soldiers for the transition to the civilian workforce. As an example, consider Carl Herbert, USMA-BOD-EMB and retired Air Force Master Sgt. who is now a telecommunications specialist for the West Point Military Academy.

"Army e-Learning provided me with the background and courses I needed to prepare for and better understand the position I decided to take at West Point," Herbert said. "Army e-Learning is a great tool. I've chosen courses to enhance my skills, because in today's world, those who rely on old technology will be passed by. With access to Army e-Learning, that won't happen to me. I've probably taken 25 to 30 courses thus far and have no intention of slowing down."

Herbert's use of Army e-Learning has not been for the sole purpose of professional development. He uses the system for business and personal development too.

"I design and build amateur radio equipment, write my own software programs using HTML and XML and design Web sites. I'm also a published writer," he said. "This is all possible because of the free classes I'm taking through Army e-Learning. It's definitely a tremendous perk for all Army employees, and I'd encourage everyone to take advantage of it."

Army e-Learning does not stop at the boundaries of professional development. It goes a step further – offering courses that assist employees with managing personal finances, balancing life, time management and more. While most organizations prioritize their training dollars based on job-specific training, the Army is covering the full spectrum.

Davis strongly believes that Army e-Learning can play a positive role in the lives of each and every Army employee.



"The Army asks its people to dedicate their heart and souls to their jobs, and they do. In return, we have a deep responsibility to them. We have the obligation to provide Army personnel with the tools they need to succeed in their personal and professional careers within the Army and beyond. Army e-Learning is helping make that possible," Davis said.

The Army is transforming the way it does business and an important factor is educating its workforce.

For additional information on how to access Army e-Learning, log onto <http://www.us.army.mil>; My Education; Army e-Learning portal page. You can also access Army e-Learning at <http://usarmy.skillport.com>. You must have an AKO account to access the system.

RDECOM Commander pins on second star

By Julie Cupernall
RDECOM Public Communications

The U.S. Army Research, Development and Engineering Command's commanding general now packs twice the star power.

Maj. Gen. Roger Nadeau was officially pinned with his second star in an afternoon ceremony, June 22. Gen. Benjamin Griffin, commanding general, U. S. Army Materiel Command, and over 150 RDECOM employees and family members attended this momentous occasion.

As a key note speaker, Griffin praised Nadeau's leadership and future potential.

Nadeau's potential as a Soldier and leader first took shape in his home state of Rhode Island. He was commissioned in 1974 as a Distinguished Military Graduate of the Reserve Officers Training Corps, University of Rhode Island. Nadeau continued to pursue higher education while working his way up through the ranks, earning a Masters Degree in Business Administration from the Florida Institute of Technology in 1987, and a Masters Degree in National Resource Strategy from the National Defense University, Washington, D.C. in 1996. Nadeau credited his many achievements to the unwavering support of his wife and family.

"The one thing I remember most about my Dad is the idea that there is nothing you can't do. That was the mentality. And Mom was the one that was always there," he said.

Nadeau is responsible for ensuring employees do their very best in achieving the command's motto - Technology to the Warfighter Quicker. In doing this, he must also focus on spreading the word about research, development, and engineering across the Army, the Department of Defense, academia, and beyond. It is his dedication to working this large-scope mission for the good of every Soldier that Nadeau says truly makes him RDECOM's commander.

"A piece of paper lets you know you're an officer. The troops will let you know when you're a leader," Nadeau said.

His awards and decorations include the Legion of Merit (Four Oak Leaf Clusters); Bronze Star; Meritorious Service Medal (Three Oak Leaf Clusters); Army Commendation Medal; Parachutist Badge; Air Assault Badge; Ranger Tab; and Army Staff Identification Badge.

Maj. Gen. Nadeau has been RDECOM's commander since taking the reigns in October 2004.



Maj. Gen. Roger Nadeau receives his second star during a ceremony June 22. Pinning on the rank are Gen. Benjamin Griffin, commanding general, U.S. Army Materiel Command, and Helen Lardner, Maj. Gen. Nadeau's wife.

Awards presented to five AATD employees

Aviation Applied Technology Directorate Public Affairs Office

FORT EUSTIS, Va. -- Five employees of the Aviation Applied Technology Directorate (AATD) recently earned the Director's Awards for their outstanding contributions during the fiscal year 2004.

Five award categories have been established by AATD. Each recipient received a Department of the Army Citation, an engraved plaque, and a cash award of \$1,500.

Maj. Gen. Roger Nadeau, commanding general, U.S. Army Research, Development and Engineering Command (RDECOM) was the guest speaker.

Tim Condon, aerospace engineer assigned to the System Integration Division earned the Director's Award for General Excellence in Engineering and Science and/or Program Management.

He was recognized for his efforts as the Airborne Manned-Unmanned System Technology Demonstration (AMUST-D) project engineer. As project engineer Condon is responsible for the cost, schedule, and performance of a \$20 million research and development program that will provide our nation's warfighters the sensor to a shooter link and situational awareness they need.

Joyce D. Bunch, secretary assigned to the Platform Technology Division, received the Director's Award for General Excellence in General and/or Administrative Support for her dedication to mission accomplishment. She is a team player whose interpersonal skills are unparalleled and willingly accepts all tasks and performs them with enthusiasm.

The Director's Award for Technological Achievement went to George C. Barber, III, electrical engineer, Rapid Prototyping Division, for his efforts on the Blue Force Tracking (BFT) projects. He was responsible for installing BFT on all active combat aircraft Apache AH-64; Black Hawk UH-60; Chinook CH-47; and the Kiowa OH-58, as well as two Marine aircraft the AH-1 Cobra, and the UH-1N Huey. The timely installation of BFT has been credited with preventing at least one case of friendly fire. Also, the two-way system in the Medical Evacuation UH-60 Black Hawk has also been used as a way of communication between the helicopter emergency team and doctors on the ground.

Receiving the Director's Award for General Excellence in Business and/or Professional Administrative was Sandra Schuck for her ability to carry on and work independently as a Senior Contract Specialist. She keeps the administration of programs moving and up-to-date while lessening the burden of management.

The Director's Award for General Excellence in Technical Support went to Gary Webb, electronics technician, Instrumentation Branch, Rapid Prototyping. He was recognized for routinely working under a tight schedule and in extreme weather conditions to provide rapid solutions to both systems integration and instrumentation challenges of the Brownout Situational Awareness. The program provides pilots with landing cues to safely land aircraft in brown (dust) and white (snow) out situations.



Employees of the Aviation Applied Technology Directorate (AATD) recently earned the Director's Awards for their outstanding contributions during the fiscal year 2004. From left: Tim Condon, Joyce Bunch, George Barber, Sandy Schuck, Gary Webb.

CERDEC employee receives prestigious award

U.S. Army Communications-Electronics Research, Development and Engineering Center

The U.S. Army Materiel Command recently named a training program specialist from the Communications - Electronics Research, Development and Engineering Center as one of their Ten Outstanding Personnel of the Year for 2004.

Dwayne Davis was the only Fort Monmouth employee to be awarded, and represents one of four winners from the U.S. Army Research, Development and Engineering Command.

"I'm sure that there are many people deserving of such an award and I feel blessed and thankful that I was selected for my efforts," remarked Davis. ¨

According to the AMC, "The intent of the award is to recognize outstanding work accomplishments that not only have been highly exemplary and an inspiration to others, but have significantly contributed to the Command's missions and operational responsibilities."

Co-workers agree that Davis's efforts truly exemplify the prestigious award.

"His skill is in finding out the strengths of each person on the team, and positioning those strengths to work toward the team's objective. He cares deeply about the mission and is completely committed to finding better ways of serving the war fighter," remarked Andy Kirkpatrick, program analyst.

Keith Dorr, a training coordinator, added, "His dedication, drive and concern is not only demonstrated within his daily duties, but also in his all his many special projects."

Davis's military career began in 1983, and during his 22 years of service, he rose to the senior enlisted position of first sergeant before retiring from the Army in 2004.

While in the military Davis concentrated on telecommunications as well as earned a Bachelor of Arts in Behavioral and Social Science from the University of Maryland in 1989 and a master's in Human Resource Management from the Florida Institute of Technology in 2000.

Since arriving at Fort Monmouth in 1999, Davis has served in a variety of positions. As a sergeant first class, he served as the Communications-Electronics Command's equal opportunity advisor and Sergeant of the Guard. He then served as first sergeant for the garrison, and as a master sergeant he became CERDEC's operation sergeant.

For the past two years, Davis has served as CERDEC's training program specialist, initially as a master sergeant and currently as a civilian. Within the position he organizes recruitment and career fairs, as well as oversees several intern programs.

"It has been a pleasure working with Dwayne, not only because of his strong work ethics but also because he is very passionate about accomplishing the mission and goals of CERDEC," remarked co-worker Addie Rogers, a career development specialist.

His initiatives and efforts to deepen the relationships between interns and Soldiers exemplify that passion. As a master sergeant, he identified the need for junior engineers and scientists to be more connected to the war fighter and developed the Greening Course which blends hands-on activities with classroom discussion to expose interns to a "typical day in the army."



Dwayne Davis (left) shares a laugh with interns Richard Vanaman and Harold Beljour at a planning meeting for an upcoming development day. (Photo by Michael Allison)



Davis then launched the Soldier Engineer Interface Initiative, which takes participants out of the lab and onto the field and allows interns to see the applications of the technologies they have developed for the war fighter.

"Dwayne's ability to take the lessons learned as a soldier on the battlefield and use them in the context of the human resources office gives the projects he creates an added dimension and resonance that reminds us that we are here to serve the war fighter," Kirkpatrick said.

The programs and its creator have received rave reviews from participants as well from the Army. In the summer of 2004, Davis was awarded the Army Commendation Medal for his efforts with the Greening Course.

"His initiatives, the Greening Course and SEI2, have had a profound impact on our future leaders and technical experts, many of whom were inspired enough to write and express their appreciation and how much they had grown from the experience," Tracy Anania, chief of CERDEC Human Resources, said.

Davis attributes his success as a civilian to his days as a soldier.

"I was able to use the organizational and leadership skills I learned in the military. As a Soldier you must ensure that for every project and task you undertake you provide excellent results, it's the military standard, and I was able to bring that with me as I entered the civilian work force," he said.

"Transitioning from an active duty Soldier to an Army civilian has been an excellent experience and to still be able to make an impact to an Army mission is gratifying," Davis concluded.

CERDEC Soldier awarded Bronze Star

By Daphne Hart

U.S. Army Communications-Electronics Research, Development and Engineering Center Public Affairs

Staff Sgt. Brian Darius of the Communications - Electronics Research, Development and Engineering Center's (CERDEC) was awarded a Bronze Star on May 12 for duties he performed while deployed to Iraq and Afghanistan.

Darius, a satellite communications terminal supervisor with the CERDEC's Space and Terrestrial Communications Directorate (S&TCD), had volunteered for the Middle East assignment as part of the Army Materiel Command's FAST (Field Assistance in Science and Technology) team.

"These opportunities are few and far between," said CERDEC Acting Technical Director Gary Martin as he presented the Bronze Star. "The recipient never wants fanfare."

And this recipient was no different. Darius had been scheduled to receive the award at an S&TCD town hall meeting, but asked that it be presented in a less public setting.

"I know that big fanfare is not what you desire but in respect to your activities, this is a credit to the CERDEC, RDECOM (Research, Development and Engineering Command) and all of your fellow Soldiers who wear the uniform," Martin told Darius during the private ceremony.

"I just want to thank everyone that supported me," Darius said upon accepting the award. "I was just lucky to get on a good team."

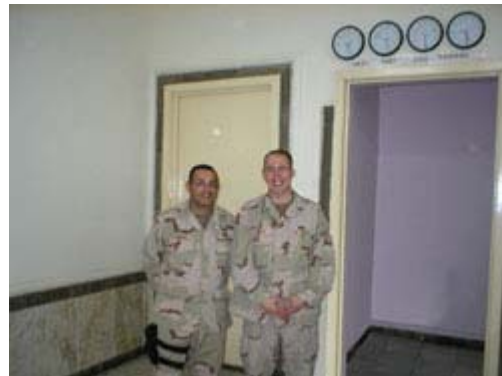
As part of the FAST team, Darius visited many units from all of the services deployed to dangerous areas to determine what technology gaps existed and how to fill them – be it through the fielding of existing equipment or the development of new ones.

In addition, the role Darius performed while deployed was supposed to be filled by sergeants first class and above; Darius was the first and only Soldier below that rank selected to be part of the team.

"He was selected because of his knowledge, motivation and maturity," said Master Sgt. Javier Pérez, the CERDEC's sergeant major. "He proved that a junior non-commissioned officer can perform as equally well as a senior NCO and was so successful that the FAST headquarters is reevaluating the teams' selection criteria."

Darius volunteered for the assignment in Iraq, much to the amusement, and concern, of some family members.

"My aunt told me, 'I thought your father was crazy for volunteering to go to Vietnam. Then you volunteer to go to Iraq? It must run in the family,'" Darius said with a laugh



Master Sgt. Javier Pérez, the CERDEC's Sergeant Major, and Staff Sgt. Brian Darius pose for a photo in their office at the Baghdad International Airport. (Photo provided by Master Sgt. Javier Pérez)

Upon joining the Army almost 10 years ago, Darius spent three years at Fort Drum, N.Y., then another three at the Allied Communications Contingency Assets pool in the Netherlands before coming to Fort Monmouth in April 2003.

Darius' supervisor in S&TCD's Joint Satellite Communications Engineering Center (JSEC), has only praise for the award-winning soldier.

"Brian works well with all the other military, civilian and contractor personnel in the JSEC," Barry said. "He is well liked and respected by everyone he works with."

Though he has enjoyed his time with the Army, he has decided to join the civilian world because he wants to spend more time with his 5 and ½ -year-old son, Jacob.

Darius, who achieved a degree in criminal justice from Brookdale Community College, is moving to Syracuse, N.Y. and would like to be a state trooper.

"We all wish Staff. Sgt Darius the best in his future endeavors," Pérez said. "We feel sad to lose such a quality Soldier; however, I know he will continue to serve our country as a civilian because he is a true patriot."



Gary Martin, CERDEC acting technical director, presents Staff Sgt. Brian Darius of the Space and Terrestrial Communications Directorate with a Bronze Star for duties that he performed while deployed to Iraq. (Photo by Russ Meseroll)

Hitchcock honored with Lawrence Tech University alumni achievement award

Second woman ever to earn this recognition

U.S. Army Tank-Automotive Research, Development and Engineering Center Public Affairs Office

Jennifer Hitchcock, TARDEC deputy associate director for mobility, is one of three Lawrence Technological University Alumni Achievement Award winners. Selected by the University's Board of Trustees, this award honors graduates who have distinguished themselves through service to their profession, community and alma mater. Hitchcock was recognized during Lawrence Tech's 73rd commencement on May 15.

Since the first Alumni Achievement Award was presented in 1952, only about 150 highly distinguished alumni have been accorded this honor from Lawrence Tech.

"Alternative energy and vehicle mobility initiatives are vital warfighter support functions, and Jennifer has been instrumental in TARDEC's development of these technologies," said Dr. Richard McClelland, director of TARDEC. "This achievement is well-deserved, and underscores Jennifer's commitment to serving our troops."

Hitchcock leads TARDEC's strategic plans for power and energy, and spearheads the mobility team's plans and programs. She also oversees TARDEC's fuel cell integrated product team in their strategic plans and acquisition strategy to support the Army Technology Objective she manages. Hitchcock is also the chair of the U.S. Army Research, Development and Engineering Command's Power and Engineering Product Team. In this role, she heads up a panel of power and energy experts from all Army research and development laboratories, Department of Defense, Department of Energy, other government organizations, industry and academia to advise Army leadership of power and energy technologies, issues and initiatives.

Hitchcock has over 16 years of technical and managerial experience in mobility and power and energy technologies, system engineering, acquisition and program management. She received her Bachelor of Science in Mechanical Engineering from Lawrence Tech, and her master's in engineering from Oakland University.

New Command Sergeant Major sets commanding goals

By Julie Cupernall
RDECOM Public Communications

The U.S. Army Research Development and Engineering Command's new command sergeant major has 27 years of soldiering in his arsenal of experience. And he is aimed that entire arsenal at two targets.

The bulls-eyes are more effective training and better care for Soldiers.

Command Sgt. Maj. Eloy Alcivar has been with the RDECOM just over one month. At his last duty assignment, he served as the command sergeant major of the 2nd Infantry Division Engineer Brigade. Alcivar also is an experienced senior drill instructor and has training in combat engineering, jungle warfare, fitness training and air assault. The opportunity to further his scope of experiences at a research and development engineering headquarters was one he relished.

"I was very excited and interested. [RDECOM] is an area I never dreamed of being stationed at. I consider it an honor and a privilege," Alcivar said.

Before the new command sergeant major could take on any new challenges facing him at RDECOM, he first had to make sure employees knew of his open door policy. He says it's his way of eliminating blocks in the two-way flow of communication - an idea thematic throughout his set plans for RDECOM. So far, he's been pleased with employees' devotion to Soldier and mission.

"I'm very impressed with the attitudes the employees of RDECOM have," Alcivar noted.

With his door officially open for business, Alcivar has started toward achieving his goals by focusing on communication and productivity. The first step- talking with RDECOM employees to make sure the quality of life and working conditions are where they should be.

"You have to take care of the most important resource, the center piece, and that's the people- whether they're soldiers or civilians," Alcivar said.

RDECOM's command sergeant major has worked out a simple equation. Satisfactory working conditions plus good quality of life equals greater productivity. It's the kind of math that adds up to better care and better training programs for the soldier, faster.

The command sergeant major is very aware of the latter half of RDECOM's motto- Technology to the Warfighter Quicker.

"My job is to find out how I can help to make your job and your work conditions better so you'll be more productive," Alcivar said.

But Alcivar is careful to point out he's only looking to foster a seed that is already well on it's way to full bloom.

"It's very encouraging to see the dedication of all the people I have met. What they do is so important for our Army, our country and for the future," Alcivar said.



Command Sgt. Maj. Eloy Alcivar.



The command sergeant major has also aimed his energy at exposing RDECOM to the rest of the Army- and finding out what it thinks. RDECOM employees can't provide better care and training technology if they don't know the needs of the Soldier.

"Everything that this command does requires feedback from the Soldiers, and I don't think we're getting enough feedback," Alcivar said.

Walking around RDECOM headquarters, Alcivar is more likely to run into someone wearing a business suit than someone in a camouflage suit. He says that's not a problem.

"People are people," Alcivar asserted.

That is, as long as he's working to make sure the people in the business suits know exactly what the people in the camouflage suits need.

"I am here to assist," Alcivar noted with a smile.

With his whole tour at RDECOM- minus one month- spread out before him, Alcivar is aware it is no small set of tasks he's taking on. But then again, he says his focus on helping RDECOM provide the best possible support to the soldier, is unwavering.

"I am a team player. I want the best for everyone. I want the best for this command. I am a 24-7 sort of guy," he said.

TARDEC musician inspires Habitat for Humanity volunteers

U.S. Army Tank-Automotive Research, Development and Engineering Center

U.S. Army Tank-Automotive Research, Development and Engineering Center engineer, and sometimes touring singer/songwriter, Terry Gonda performed for 1,500 Habitat for Humanity volunteers, former president Jimmy Carter, and Michigan Governor Jennifer Granholm on 22 June at the Jimmy Carter Work Project (JCWP) 2005 in Michigan.

Gonda performed along with the Broe Rehabilitation Therapy Choir during the lunch break, where volunteers cycled through from 11:30 a.m. to 1:30 p.m. The former president and Michigan Governor listened from the adjoining VIP tent.

Habitat Detroit is one of two host cities for this special Habitat project, which ran during 17-24 June. Former President Jimmy Carter and his wife Rosalynn lead volunteers from around the world to build Habitat homes for partner families. Michigan committed to build more than 230 homes in one week all across the state. Detroit is scheduled to build 30 homes in southwest Detroit, in the Thurgood Marshall Village.

Gonda was very moved by the experience.

"This is an incredible event. It is a very hot day, but these people are here for the 4th consecutive day of the project and they still have all this enthusiasm. I've run into several people I knew who have taken time out of their lives to come here and work on the homes. Some for the first time who knew nothing before this and some who do this every year. This is very inspiring," she said.

Gonda performed her original music in a tag-team format with the Broe choir as they often do throughout the year in shows focusing on hope. The choir was started by therapist Len McCulloch in 1998 after he discovered that a patient, who had been mute for over a decade, could sing Amazing Grace.

The choir grew and now has the mission to provide a unique therapeutic experience for persons with Traumatic Brain Injury (TBI), and to raise community awareness of TBI and rehabilitation. They recently performed their 100th concert in Lansing, Mich.

Gonda performs alongside them four to five times per year at various venues such as the Detroit Rescue Mission, the Vista Maria School for Troubled Girls, and other similar venues. Both Gonda and the choir were looking forward to this Habitat event for the past three months.

"This has been a great experience and we all feel very honored to have been a part of it," she said.



Terry Gonda, TARDEC engineer, performed for 1,500 Habitat for Humanity volunteers, former president Jimmy Carter, and Michigan Governor Jennifer Granholm on 22 June at the Jimmy Carter Work Project (JCWP) 2005 in Michigan.

Display showcased Soldier technology and chow to Senators and staff

Natick Soldier Systems Center Public Affairs Office

Why are American military forces the best protected, best equipped and best sustained troops in the world today? And how does science play a part in the technology used by our Soldiers, especially during times of war? Congress received the answers to these questions during Soldier Modernization Day, June 16, on Capitol Hill in Washington, D.C.

For this event, representatives from the U.S. Army Natick Soldier Center, Product Manager Force Sustainment Systems, U.S. Army Research Laboratory, U.S. Army Tank Automotive Research, Development and Engineering Center and Program Executive Office Soldier joined forces to showcase items that science has brought to the forefront for our warfighters.

Senators and their staffers had an opportunity to view the latest innovations in Soldier technology and sample some of the newest field rations.

Some key items displayed included:

- Future Force/Future Warrior Systems - These systems will provide increased capabilities to our warfighters using advanced technologies. Future Force Warrior works in conjunction with the Future Combat System program to develop the next generation Soldier. Future Warrior is a visionary concept of how the individual warrior may be equipped in the 2015-2020 timeframe.
- Sample the latest Meals, Ready-To-Eat (MRE), Unitized Group Rations, and components of the new First Strike Ration - menu items that are warfighter recommended, warfighter tested and warfighter approved. Menus are changed annually to ensure the diverse cultural and ethnic food preferences of our warfighters are being met.
- Improvements to or new items that improve Soldiers' safety and quality of life - Cargo aerial delivery systems, camouflage net systems, space heaters, field kitchen and food service equipment, shelters, including the Force Provider system, a base camp system that includes climate control, showers, laundries and more.
- Shear thickening fluid for personnel protection and lightweight vehicle armor technologies.
- Add on armor programs for HMMWVs, including those currently used in support of Operation Iraqi Freedom, vehicle suspension improvements, vehicle electronics technology and portable chem/bio sensor systems.
- Current items that are improving our Soldiers' lethality, mobility and quality of life, including: Advanced Combat Helmet, Knee and Elbow Pads, Hydration System, Multi-Band/Intra Team Radio, Body Armor Additions, Advanced Combat Optical Gunsight, Enhanced Night Vision Goggles and more.
- Emerging and existing photovoltaic technologies that will help increase mobility by decreasing weight and minimizing logistic requirements.
- The latest in Soldier-launched small unmanned aerial vehicles, specifically the Raven.



An exhibitor with the U.S. Army Natick Soldier Center completes some final preparations to his booth for visitors prior to the opening of Soldier Modernization Day on Capitol Hill recently. (Photo by Larry McCaskill)



Visitors to the Soldier Modernization Day exhibit on Capitol Hill were able to taste samples from the Meals, Ready-To-Eat (MRE) packets and from the latest Unitized Group Rations and components of the new First Strike Rations. (Photo by Larry McCaskill)

ECBC Participates in BIO-2005 - DoD Biodefense Panel

Edgewood Chemical Biological Center Public Affairs Office

The U.S. Army Edgewood Chemical Biological Center (ECBC) presented new biodefense research and development approaches, details on the latest biotechnology programs and funding streams, and advanced concepts for defense biotechnology at the BIO 2005 Annual International Convention held in Philadelphia June 19 - 22.

Dedicated to fostering the transfer of technologies to support critical national interests, ECBC actively seeks opportunities to apply warfighter innovations to the war on terrorism and homeland defense.

Center activities span the life-cycle of chemical and biological defense research and product development.

RDECOM Soldier selected as Soldier of the Year

U.S. Army Research, Development and Engineering Command Public Communications Office

Spc. John Wild, Natick Soldier Systems Center, was selected as the Army Materiel Command Soldier of the Year after his performance in front of a board of senior enlisted members June 20-24.

The infantryman from Wolcott, N.Y., has been in the Army for nearly two years and was accepted to become a Human Research Volunteer at the Soldier Systems Center during a recruiting visit during his basic and advanced training at Fort Benning, Ga.

He said he decided to join the Army because he thought it would be fun and was influenced by his older brother who expressed interest in joining. In his time at Natick, Wild has participated in studies on nitrogen balance and cold water immersion as well as helping out with other duties as a member of Headquarters and Headquarters Detachment.

"I didn't have any expectations (on coming to Natick)," Wild said. "It's been nice."

Although his time here may be coming to a close in the next year, the Army figures to be his employer in the longer term. He has applied to become a warrant officer and attend flight training to become a helicopter pilot.

If that doesn't work out, he said his other choice is to stay enlisted and change his career field to military intelligence.



The Army Sexual Assault Prevention and Response Program

RDECOM Antiterrorism, Law Enforcement & Physical Security Office

The Army Sexual Assault Prevention and Response Program reinforces the Army's commitment to eliminate incidents of sexual assault through a comprehensive policy that focuses on education, prevention, integrated victim support, rapid reporting, thorough investigation, appropriate action, and follow-up. Army policy promotes sensitive care for victims of sexual assault and accountability for those who commit these crimes.

Do you know the difference between sexual assault and sexual harassment? Do you know what you can do to protect yourself from becoming a sexual assault victim? Do you know what a SARC is and how to contact one?

To get the answers to the above questions and more, check out the following website:

<http://www.sexualassault.army.mil/>